

REMARKS

Claims 33-36 are withdrawn from consideration.

Claims 37 and 38, the only claims being prosecuted herein, have been amended in order to remove the rejections made under 35 U.S.C. §112, second paragraph and to more particularly point out, and distinctly claim the subject matter to which the applicant regards as his invention. It is believed that this Amendment is fully responsive to the Office Action dated **February 11, 2003**.

As now amended, Applicant's independent claim is to a method of forming a plurality of wiring lines of conductive material on a board having a core layer to form a printed circuit board. The method includes forming the plurality of wiring lines on a surface of the core layer, having first and second portions, with the plurality of wiring lines formed on the surface of the core having a uniform thickness in height relative to the surface of the core layer. Then, etching a first of the plurality of wiring lines is effected, such that the first portion is thinner in height relative to the surface of the core layer than the second portion. Such a method is not taught or suggested in the reference cited.

Reconsideration and removal of the rejection of claims 37 and 38 as anticipated under 35 U.S.C. §102(b), by Takahashi (U.S. 4,413,309) are respectfully requested in view of the present amendments to the claims and the following remarks.

The Office Action alleges that Takahashi discloses a plurality of wiring lines with a uniform thickness formed on the board (Fig. 2), and that first and second portions of the first of the plurality of wiring lines have different heights if one were to hold the Takahashi patent 90 degrees such that 2 and 7 along II-II have different heights in Fig. 1. It is also alleged that third and fourth portions

of the second of the plurality of wiring lines have different heights if one were to hold the Takahashi patent 90 degrees such that 2 and 7 (with IV-IV marking) have different heights in Fig. 1. Chemical etching is also performed in different portions of the wiring lines.

Applicant believes that this interpretation of Takahashi is a tortured and unreasonable interpretation of the teachings. The claims, as presented, clearly describe the difference in the thickness being in the "height" direction as shown in the drawings. The Office Action refuses to acknowledge this. In order to emphasize this feature further, the claims are amended to provide that the wiring lines are formed on "a surface of said core layer" of the board, and have a uniform thickness in height "relative to said surface of said core layer." The etching then provides that one portion of the wiring lines is thinner in height "relative to said surface of said core layer." Such is clearly not taught or suggested by Takahashi.

Takahashi (U.S. 4,413,309) discloses a printed circuit board for mounting circuit elements to form an electric circuit thereon, in order to connect the electrodes of the leadless elements to the lands of the circuit board with certainty (Field of the Invention and Description of the Prior Art).

In the Takahashi reference, the conductive patterns 4 are formed uniformly at a constant height and portions where the solder-resist layer 5 are layered and other portions where the solder-resist layer 5 are not layered are formed.

The present invention discloses a method of forming a printed circuit board with reduced crosstalk noise generated between adjacent two of a plurality of wiring lines spaced thereon.

Either one of two adjacent two lines is formed thinner in height than another line as claimed in claim 37. Accordingly, the crosstalk noise can be reduced. Because according to $K=(Lm/Lo+Cm/Co).times.Td.times.1.times.(dV/dt)$ where a coefficient K indicates the amplitude of the crosstalk noise, the area S_m of the overlapping part of the facing surfaces of the wiring line 32a (or a second wiring line) and the wiring line 32b (or a first wiring line) per unit length is smaller than that of the overlapping part of the facing surfaces of wiring lines of the thickness H_3 per unit length which are laid out with the pattern pitch X_4 (See FIG. 3B).

Takahashi does not disclose or suggest the present method and the resultant relationship between the wiring lines and crosstalk noise.

In view of the aforementioned amendments and accompanying remarks, claims 33-38, as amended, are believed to be in condition for allowance, which action, at an early date, is requested.

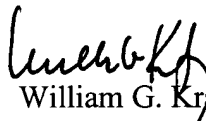
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No. 09/928,441

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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